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| 10/025,303 | 12/19/2001 | Benjamin N. Eldridge | 20206-12 | 3351 |

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EXAMINER

ABRAMS, NEIL

| ART UNIT | PAPER NUMBER |
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2839

DATE MAILED: 11/12/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/025303

Applicant(s)

Examiner

Group Art Unit

2839

AW

— The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- ☐ Responsive to communication(s) filed on _____
- ☐ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- ☒ Claim(s) 1-33 is/are pending in the application.
- Of the above claim(s) _____ is/are withdrawn from consideration.
- ☒ Claim(s) 27-33 is/are allowed.
- ☒ Claim(s) 1, 2, 9-12, 14-18, 20-23, 25, 26 is/are rejected.
- ☒ Claim(s) 3-8, 13, 19, 24 is/are objected to.
- ☐ Claim(s) _____ are subject to restriction or election requirement

Application Papers

- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119 (a)-(d).
- ☐ All ☐ Some* ☐ None of the:
 - ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____
 - ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a))

*Certified copies not received: _____

Attachment(s)

- ☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____
- ☒ Notice of Reference(s) Cited, PTO-892
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Interview Summary, PTO-413
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Other _____

Office Action Summary

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Abstract objected to as unclearly expressed. Use of "cover mounted over probe contacts, of magnets, ~~high~~ ^{low strength} adhesive, etc to attach cover to probe card and of track mounted robotic holder to grab cover and to move it away from the contacts ~~7/8~~ should be added to abstract.

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness

rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 20 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Schwar alone or in view of Venaleck.

Schwar discloses a system with probe card 22, contacts 23 and a movable cover 24, all within testing machine 20. *Compare to applicants fig 8 device -*

As an alternative should it be argued that the Schwar cover 24 does not overlap contacts 23, Venaleck cover 6a, fig. 1A, is seen to clearly overlap contacts 5. It would have been obvious to form the Schwar cover to include a larger lip 80 as in Venaleck, fig 1A. This would enable the cover to more securely press on the DUT.

Claims 2, 9, 10, 11, 12 14, 15-18 25, 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schwar view of Inoue, Schuck, Venaleck and Grabbe.

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Schwar does not disclose claim 2 “z-axis movement”, or use of magnets, etc to hold the cover to the probe card or claims 14, 15 type covers. Inove, Schuck, and Grabbe disclose systems with z-axis covers and Schuck shows a cover with (claims 14, 15) means for engaging a holder 51, and with a flange surrounding the contacts, see fig. 6.

It would have been obvious to form Schwar with a receiver such as that of Inove at 12 Schuck (cover 22) or Grabbe (cover 10'). This would provide greater press down force and alignment for the DUT 30. For claims 9, 10, 11, attachment of Schucks base 40 or Grabbe base 18 to the card using selected means, such as those recited, which do not seem to be basic to the inventive concept would have been obvious changes. In addition, the bases are readable as part of the card with Grabbe plate 10 being the cover. Obvious to attach such cover by magnets, etc these being a known alternative to fasteners. For claim 10, obvious to use Schuck, applied as above, but with Venaleck, bayonet connections. This would enable easier mounting of the cover. For claim 12, obvious to provide Schuck type socket with recited type of sealed space. Claim 18 defines no structure over the prior art.

For claim 14, and others, term “holder” as broadly recited does not define over a part like 52 of Schuck or over the Grabbe cover 10 holes that receive screws (holders) 74. Claim 16 readable on use of cover with key-lock means (as in closed door) to hold it in place. Such use unrelated to inventive concept and does not provide patentable distinction.

For Inove, fig 1, as applied above, (claims 9-11) obvious to use magnet, adhesive or bayonet means in place of fastener 13 for attachment of cover 12 to the probe card. This would

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only amount to use of well known fastening means. Also note that cover would be used then removed for next test set and then would be reapplied.

Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schwar alone or in vie of Venaleck.

See discussion above. Schwar does not disclose testing of a die on a wafer. However, testing or such items in machines of Schwar type are well known as discussed in spec. It would have been obvious to use Schwar machine to test such items as that is standard use.

Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schwar in view of Schuck and Cameron.

Schwar/Schuck combination lacks aperture sheaves. These are shown by Cameron, figs 11, 12. Obvious to use same in Schwar/Schuck to enable easy opening and closing of the aperture.

Claims 1, 2, 18, 22, 23 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Jeong.

Jeong shows a system with probe card 30 with contacts 133 for testing DUT 10 and a removable cover 50. The movement in fig 6A could be read as generally is a Z-axis. Also obvious should issues arise, to mount 50 for straight up and down motion followed by X-axis motion. For claim 23, the frames 62 are read as means for mechanically holding the holder.

Claims 27-33 are allowed.

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Claims 3-8, 13, 19 24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is an examiner's statement of reasons for allowance: (For claims 27, 3, 23, etc. use of mechanical holding means or holder in the machine for moving the cover is not taught, in the context of these claims, by the prior art of record


Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

For claims 1, 22, 27--the cover being formed (1) solely as a contact protector and (2) to serve no function during the die testing procedure--, or equivalent could be added to more clearly define the invention.

Any inquiry concerning this communication should be directed to N. Abrams at telephone number (703) 308-1729.

N ABRAMS/pj

11/10/03


NEIL ABRAMS
EXAMINER
ART UNIT 322